

## 5.0 ENVIRONMENTAL CONSEQUENCES

To restore resources lost as a result of the oil spill, the Trustees examined a variety of restoration alternatives. These included alternatives: (A) no action and natural recovery, (B) population-focused restoration, (C) habitat-focused restoration, and (D) integrative restoration. The integrative restoration approach is the alternative selected by the Trustees. The *Tenyo Maru* Trustees intend to avoid or reduce negative impacts to existing natural resources and services to the greatest extent possible. However, the Trustees could undertake actions that may have short or long term effects upon existing habitats or non-injured species. Project specific environmental consequences for each alternative and associated projects are provided in Section 3. This section addresses the potential overall cumulative, direct, and indirect impacts, and other factors to be considered in both the OPA and the NEPA regulations.

The *Tenyo Maru* Trustees believe that the projects selected in this restoration program will not cause significant negative impacts to natural resources or the services they provide. Further, the Trustees do not believe the proposed projects will adversely affect the quality of the human environment in ways deemed "significant."

**Cumulative Impacts:** Since the projects are primarily designed to restore degraded habitats and improve recovery of injured natural resources, the cumulative environmental consequences will primarily be beneficial. These cumulative impacts include long-term restoration of the condition and functioning elements of the injured ecosystem by increasing the number of individual seabirds that attempt to reproduce, the recruitment of seabird and kelp populations, and the amount and condition of protected habitats. Both project and NEPA monitoring of projects funded under the Tenyo Maru restoration fund will verify that cumulative impacts will be beneficial rather than adverse. Any cumulative adverse effects on an area or other area program, plan, or regulatory regime from a proposed project, will result in the project being redesigned or abandoned.

**Indirect Impacts:** Environmental consequences would not be limited to the project location. Indirect beneficial impacts would also occur throughout populations and habitats in Western Washington and Oregon. Cumulative impacts at the project locations, and in the surrounding area, are expected to increase populations of seabirds and kelp, provide improved habitats for a variety of fish and wildlife, and provide a greater understanding of human interaction with natural resources. This alternative could indirectly benefit a variety of federally *threatened and endangered species* and Washington State listed sensitive species by providing nesting, feeding, resting, rearing and other forms of habitats utilized during the lives of these species.

**Direct Impacts:** Providing improved habitats, improving the survivability of seabirds of all age classes, **preventing future oil spills**, and enhancing natural seabird and kelp recruitment may aid in replenishing the resources injured in the *Tenyo Maru* oil spill. The restoration projects may increase the survivability of seabirds and kelp not killed in the oil spill, **will help protect natural recovery of affected resources**, and will aid in replenishing the natural population by increasing productivity levels.

Overall, this alternative should enhance *water and sediment quality* and the functionality of ecosystems. However, some brief impacts from the proposed actions may include short-term disturbances from *noise and air pollutants* from construction activities **and interim emergency response vessel operations**; short-term water and sediment quality impacts; temporary disruption of animal migrations, breeding and nesting; short-term disturbances of existing plant communities; and temporary disturbances of ecological processes while the restored system reaches maturity.

It is the Trustees' intention to keep *construction* categorized as very "minor." The term of any construction projects (e.g., sediment control activity, forest manipulation, and the posting of signs) is anticipated to be very short, generally from two to four weeks.

Projects that involve short-term construction activities **and the operation of the interim emergency response vessel** could generate noise from machinery and equipment. If specific construction projects are to be conducted in "noise sensitive" areas, project specific environmental assessments will be conducted and include the extent of any impact. The proposed restoration projects could cause an increase in noise from resident and migrating birds, which would be a potential long-term impact. As habitat is restored or improved, birds and other wildlife should become more plentiful in the project area. However, the areas surrounding the proposed projects areas are primarily water or wilderness areas. It is not anticipated that any significant *noise impacts* would result from the projects proposed by the Trustee Committee.

Implementation of the proposed projects should result in no significant impact to *water quality*. Habitat modification activities in or next to streams or rivers, could have short-term water quality impacts through temporary increases in sedimentation and turbidity. Any impacts resulting from restoration construction activities will be mitigated by using techniques such as the use of sediment curtains or other technologies designed to reduce sediment transport. Any construction equipment would be monitored to ensure diesel, gas, or oils are not released into waters at or next to the project site. The Committee believes that restoration activities would result in insignificant effects to this resource.

No long-term adverse effects to *sediment quality, soils, or geologic conditions* are anticipated under this restoration plan. The Trustee Committee does not anticipate any temporary or permanent *visual impacts* from any of the projects and none of the proposed restoration actions should have a **significant** impact on *energy consumption, although minor increases in the consumption of fuel will likely result from emergency response vessel operations. No projects would directly or indirectly affect *wetlands or flood plain areas*. Furthermore, the *Tenyo Maru* Trustees do not believe any of the proposed restoration projects would have a significant impact on the *coastal zone*, but specific projects in the coastal zone will undergo the appropriate coastal zone consistency review requirements.*

The project sites are wilderness areas, areas surrounded by water or areas under water. Restoration work should not have any *social or economic impacts* upon the neighborhoods or

community cohesion for various groups from proposed projects. Property values should not be decreased, nor will there be any separation of the communities' residents from community facilities. Due to the nature and purpose of the Restoration Plan, there are no anticipated human relocation issues. **Stationing of the emergency response vessel at Neah Bay may result in an short-term increase in economic activity in that community.**

General *land use patterns* and *aesthetic qualities* should not be adversely affected under the preferred alternative for the following reasons. Open space and recreational uses are scattered throughout the study area and forested areas. Land ownership may be affected if direct land purchase is required, however this should not affect the overall balance of ownership patterns within the study areas. Land management practices will not be affected since the pertinent local plans and ordinances, and state planning regulations, encourage the preservation and restoration of the area's vital natural resources.

*Public access* to natural resources could be affected. The proposed public education project includes interpretive signs that should make the public more aware of the environment that they are viewing. Subsequently, this could draw more frequent human visitors, however, the number is anticipated to be insignificant. The signs are intended to educate those present, to increase awareness, and not to attract. It is the intent of the Trustees to balance the goals of public access and habitat restoration whenever possible. Recreation and tourism will not be negatively affected by the proposed projects, however, the public may be more educated on how to avoid impacts to seabirds while recreating or touring on or near islands that support seabird colonies.

Specific restoration sites and their perceived potential impact upon *water-oriented commerce* would be addressed on a site-by-site basis, as would be their eligibility for the *National Historic Register of Historic Places*. Since all site-specific projects would be designed to identify historic properties, potential effects on *tribal treaties* and *archaeological preservation* and mitigate for any potential impacts, it is not anticipated that historic properties would be affected under any of the proposed actions. Information on prime and *unique agricultural lands* will be solicited from the United States Department of Agriculture upon selection of specific *Tenyo Maru* restoration sites.

No significant negative impacts to *threatened or endangered species* are expected to result from the integrated approach. Consultation under the Endangered Species Act would occur prior to any on the ground activities that may affect listed species. If actions under this alternative are determined to adversely affect federal or state-listed species, the project would be redesigned, relocated or abandoned. The chance of any *Tenyo Maru* restoration project having a negative impact on *fish and wildlife* is insignificant, limited only to the duration of construction **and other** activities. The anticipated overall environmental effect on fish and wildlife is to restore and maintain species diversity and abundance in Washington and Oregon.

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## **Appendix A: Coordination with Other Programs, Plans, and Regulatory Authorities**

### **A.1 Overview**

Two major federal laws guiding the restoration of the injured natural resources and services from the *Tenyo Maru* oil spill are OPA and NEPA. OPA and its regulations provide the basic framework for natural resource damage assessment and restoration. NEPA sets forth a specific process of impact analysis and public review. In addition, the Trustees must comply with other applicable laws, regulations and policies at the federal, state and local levels. The potentially relevant laws, regulations and policies are set forth below.

In addition to laws and regulations, the Trustees must consider relevant environment or economic programs or plans that are ongoing or planned in or near the affected environment. The Trustees must ensure that their proposed restoration activities neither impede nor duplicate such programs or plans. By coordinating restoration with other relevant programs and plans, the Trustees can enhance the overall effort to improve the environment.

### **A.2 Key Statutes, Regulations and Policies**

#### **Oil Pollution Act of 1990 (OPA), 33 U.S.C. 2701, et seq.; 15 CFR Part 990**

OPA establishes a liability regime for oil spills which injure or are likely to injure natural resources and/or the services that those resources provide to the ecosystem or humans. Federal and state agencies and Indian tribes act as trustees on behalf of the public to assess the injuries, scale restoration to compensate for those injuries and implement restoration. Section 1006(e)(1) of OPA (33 U.S.C. 2706 (e)(1)) requires the President, acting through the Under Secretary of Commerce for Oceans and Atmosphere, (NOAA) to promulgate regulations for the assessment of natural resource damages resulting from a discharge or substantial threat of a discharge of oil. Assessments are intended to provide the basis for restoring, replacing, rehabilitating, and acquiring the equivalent of injured natural resources and services.

#### **National Environmental Policy Act (NEPA), 42 U.S.C. 4321, et seq. 40 CFR Parts 1500-1508**

Congress enacted NEPA in 1969 to establish a national policy for the protection of the environment. NEPA applies to federal agency actions that affect the human environment. NEPA established the Council on Environmental Quality (CEQ) to advise the President and to carry out certain other responsibilities relating to implementation of NEPA by federal agencies. Pursuant to Presidential Executive Order, federal agencies are obligated to comply with the NEPA regulations adopted by the CEQ. These regulations outline the responsibilities of federal agencies under NEPA and provide specific procedures for preparing environmental



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documentation to comply with NEPA. NEPA requires that an Environmental Assessment (EA) be prepared in order to determine whether the proposed restoration actions will have a significant effect on the quality of the human environment.

Generally, when it is uncertain whether an action will have a significant effect, federal agencies will begin the NEPA planning process by preparing an EA. The EA may undergo a public review and comment period. Federal agencies may then review the comments and make a determination. Depending on whether an impact is considered significant, an environmental impact statement (EIS) or a finding of no significance (FONSI) will be issued.

The Trustees have integrated this restoration plan with the NEPA process to comply with those requirements. This integrated process allows the Trustees to meet the public involvement requirements of OPA and NEPA concurrently. This DRP/EA is intended to accomplish partial NEPA compliance by:

- summarizing the current environmental setting;
- describing the purpose and need for restoration action;
- identifying alternative actions;
- assessing the preferred actions' environmental consequences; and,
- summarizing opportunities for public participation in the decision process.

Project-specific NEPA documents will need to be prepared for those proposed restoration projects not already analyzed in an environment assessment or environmental impact statement.

### **Park System Resource Protection Act, 16 U.S.C. 19jj**

Public Law 101-337, Park System Resource Protection Act (16 U.S.C.19jj), requires the Secretary of the Interior to assess and monitor injuries to park system resources. The Act specifically allows the Secretary of the Interior to recover response costs and damages from the responsible party causing the destruction, loss of or injury to park system resources. This Act provides that any monies recovered by the NPS may be used to reimburse the costs of response and damage assessment and to restore, replace or acquire the equivalent of the injured resources.

### **Clean Water Act (CWA) (Federal Water Pollution Control Act), 33 U.S.C. 1251, et seq.**

The CWA is the principal law governing pollution control and water quality of the nation's waterways. Section 404 of the law authorizes a permit program for the disposal of dredged or fill material into navigable waters. The Army Corps of Engineers (Corps) administers the program. In general, restoration projects which move significant amounts of material into or out of waters or wetlands -- for example, hydrologic restoration of marshes -- require 404 permits.

Under section 401 of the CWA, restoration projects that involve discharge or fill to wetlands or navigable waters must obtain certification of compliance with state water quality standards.

Generally, restoration projects with minor wetlands impacts (*i.e.*, a project covered by a Corps general permit) do not require 401 certification, while projects with potentially large or cumulative impacts do.

**Coastal Zone Management Act (CZMA), 16 U.S.C. 1451, *et seq.* 15 CFR Part 923**

The goal of the CZMA is to preserve, protect, develop and, where possible, restore and enhance the nation's coastal resources. The federal government provides grants to states with federally-approved coastal management programs. The State of Washington has a federally-approved program. Section 1456 of the CZMA requires that any federal action inside or outside of the coastal zone that affects any land or water use or natural resources of the coastal zone shall be consistent, to the maximum extent practicable, with the enforceable policies of approved State management programs. It states that no federal license or permit may be granted without giving the State the opportunity to concur that the project is consistent with the State's coastal policies. The regulations outline the consistency procedures.

To comply with the CZMA, the Trustees intend to seek the concurrence of the State of Washington that their preferred projects are consistent to the maximum extent practicable with the enforceable policies of the state coastal program.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601, *et seq.***

CERCLA provides the basic legal framework for clean up and restoration of the nation's hazardous substances sites. Generally, parties responsible for contamination of sites and the current owners or operators of contaminated sites are liable for the cost of clean up and restoration. CERCLA establishes a hazard ranking system for assessing the nation's contaminated sites with the most contaminated sites being placed on the National Priorities List (NPL).

To the extent that restoration projects are proposed for areas containing hazardous substances, the Trustees will avoid exacerbating any potential risk posed by such substances and will undertake no actions which might constitute "arrangement for disposal of hazardous substances." At this time, the Trustees are not aware of any potential hazardous substance problem associated with the areas where proposed restoration projects will occur.

**Endangered Species Act (ESA), 16 U.S.C. 1531, *et seq.***

The ESA directs all federal agencies to conserve endangered and threatened species and their habitats and encourages such agencies to utilize their authorities to further these purposes. Under the Act, the DOC through NOAA and the DOI through the FWS publish lists of endangered and threatened species. Section 7 of the Act requires that federal agencies consult with these departments to minimize the effects of federal actions on endangered and threatened species.

Prior to implementation of any project potentially affecting an endangered or threatened species, the Trustees would conduct Section 7 consultations.

**Magnuson-Stevens Fishery Conservation and Management Act, 16 USC 1801 *et seq.***

The Magnuson-Stevens Fishery Conservation and Management Act as amended and reauthorized by the Sustainable Fisheries Act (Public Law 104-297) established a program to promote the protection of essential fish habitat (EFH) in the review of projects conducted under federal permits, licenses, or other authorities that affect or have the potential to affect such habitat. After EFH has been described and identified in fishery management plans by the regional fishery management councils, federal agencies are obligated to consult with the Secretary of Commerce with respect to any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by such agency that may adversely affect any EFH.

The Trustees believe that the proposed restoration projects will have no adverse effect on the EFH units defined in the Pacific Groundfish Fishery Management Plan. The projects will promote the protection of fish resources in EFH areas. Prior to implementation of any restoration projects that may potentially create a potential adverse impact to EFH, the Trustees will consult with the National Marine Fisheries Service.

**Endangered Species Act and Essential Fish Habitat**

Consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act will occur prior to any on-the-ground projects that may adversely affect listed species or habitats.

**Fish and Wildlife Coordination Act (FWCA), 16 U.S.C. 661, *et seq.***

The FWCA requires that federal agencies consult with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and State wildlife agencies for activities that affect, control or modify waters of any stream or bodies of water, in order to minimize the adverse impacts of such actions on fish and wildlife resources and habitat. This consultation is generally incorporated into the process of complying with Section 404 of the Clean Water Act, NEPA or other federal permit, license or review requirements.

**Rivers and Harbors Act, 33 U.S.C. 401, *et seq.***

The Rivers and Harbors Act regulates development and use of the nation's navigable waterways. Section 10 of the Act prohibits unauthorized obstruction or alteration of navigable waters and vests the Corps with authority to regulate discharges of fill and other materials into such waters. Restoration actions that require Section 404 Clean Water Act permits are likely also to require permits under Section 10 of the Rivers and Harbors Act. However, a single permit usually serves for both. Therefore, the Trustees can ensure compliance with the Rivers and Harbors Act through the same mechanism.

**Executive Order 12898 - Environmental Justice**

On February 11, 1994, President Clinton issued Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. This Executive Order requires each federal agency to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority and low income populations. EPA and the Council on Environmental Quality (CEQ) have emphasized the importance of incorporating environmental justice review in the analyses conducted by federal agencies under NEPA and of developing mitigation measures that avoid disproportionate environmental effects on minority and low-income populations. The Trustees have concluded that there are no low income or ethnic minority communities that would be adversely affected by the proposed restoration activities.

**Executive Order 11988 -- Construction in Flood plains**

This 1977 Executive Order directs federal agencies to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of Flood plains and to avoid direct or indirect support of development in Flood plains wherever there is a practicable alternative. Each agency is responsible for evaluating the potential effects of any action it may take in a flood plain.

Before taking an action, the federal agency must determine whether the proposed action will occur in a flood plain. For major federal actions significantly affecting the quality of the human environment, the evaluation will be included in the agency's NEPA compliance document(s). The agency must consider alternatives to avoid adverse effects and incompatible development in Flood plains. If the only practicable alternative requires siting in a flood plain, the agency must:

(1) design or modify the action to minimize potential harm; and, (2) prepare and circulate a notice containing an explanation of why the action is proposed to be located in the flood plain.

**Model Toxics Control Act (MTCA), Ch. 70.105D RCW (1989) and Ch. 173-340 WAC (1992)**

MTCA, Washington's toxic cleanup law, mandates that site cleanups protect the state's citizens and the environment. The regulations established cleanup standards, which provide a uniform, statewide approach to cleanup that can be applied on a site-by-site basis; and requirements for cleanup actions, which involve evaluating the best methodology to achieve cleanup standards at a site.

**State Environmental Policy Act (SEPA), Ch. 43 RCW**

Adopted in 1971, and revised several times, SEPA requires state agencies and local governments to analyze proposed projects and plans for potentially significant impacts to the environment. Regulations implementing SEPA and providing guidance for state and local governments have been adopted (CH. 197-11 WAC). Specific resource areas which must be considered under SEPA include earth, air, water, vegetation, wildlife, public health, and shorelines. The SEPA review process may be initiated at the local government level through the development application review procedures. Local regulations identifying and protecting critical or sensitive

environmental areas help ensure compliance with SEPA regulations. State agencies also prepare documents in response to proposals for state agency action.

### **A.3 Other Potentially Applicable Laws and Regulations**

This section lists other laws that potentially affect any proposed restoration activities. The statutes or their implementing regulations may require permits from federal or state permitting authorities.

Archaeological Resources Protection Act, 16 U.S.C. 470, *et seq.*

Clean Air Act, 42 U.S.C. 7401, *et seq.*

Marine Mammal Protection Act, 16 U.S.C. 1361, *et seq.*

Migratory Bird Treaty Act, 16 U.S.C. 703, *et seq.*

National Historic Preservation Act, 16 U.S.C. 470, *et seq.*

National Park Act of August 19, 1916 (Organic Act), 16 U.S.C. 1, *et seq.*

Olympic Coast National Marine Sanctuary, 15 CFR Part 922